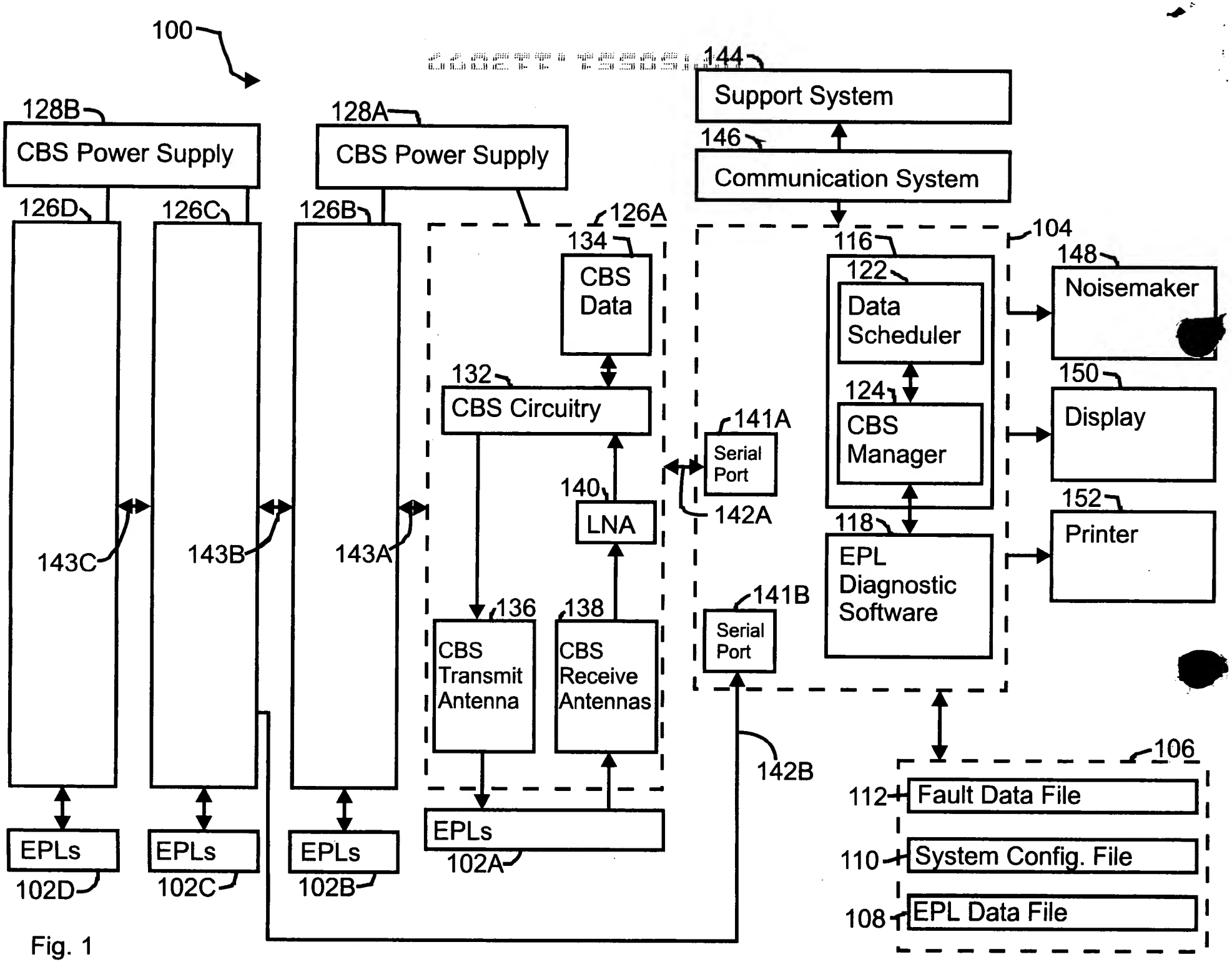
100
144
Support System
146
Communication System
128B
CBS Power Supply
128A
CBS Power Supply
126D
126C
126B
126A
134
CBS Data
132
CBS Circuitry
140
LNA
141A
Serial Port
142A
104
116
122
Data Scheduler
124
CBS Manager
118
EPL Diagnostic Software
148
Noisemaker
150
Display
152
Printer
141B
Serial Port
142B
136
CBS Transmit Antenna
138
CBS Receive Antennas
143C
143B
143A
EPLs
102D
EPLs
102C
EPLs
102B
EPLs
102A
106
112
Fault Data File
110
System Config. File
108
EPL Data File

Fig. 1

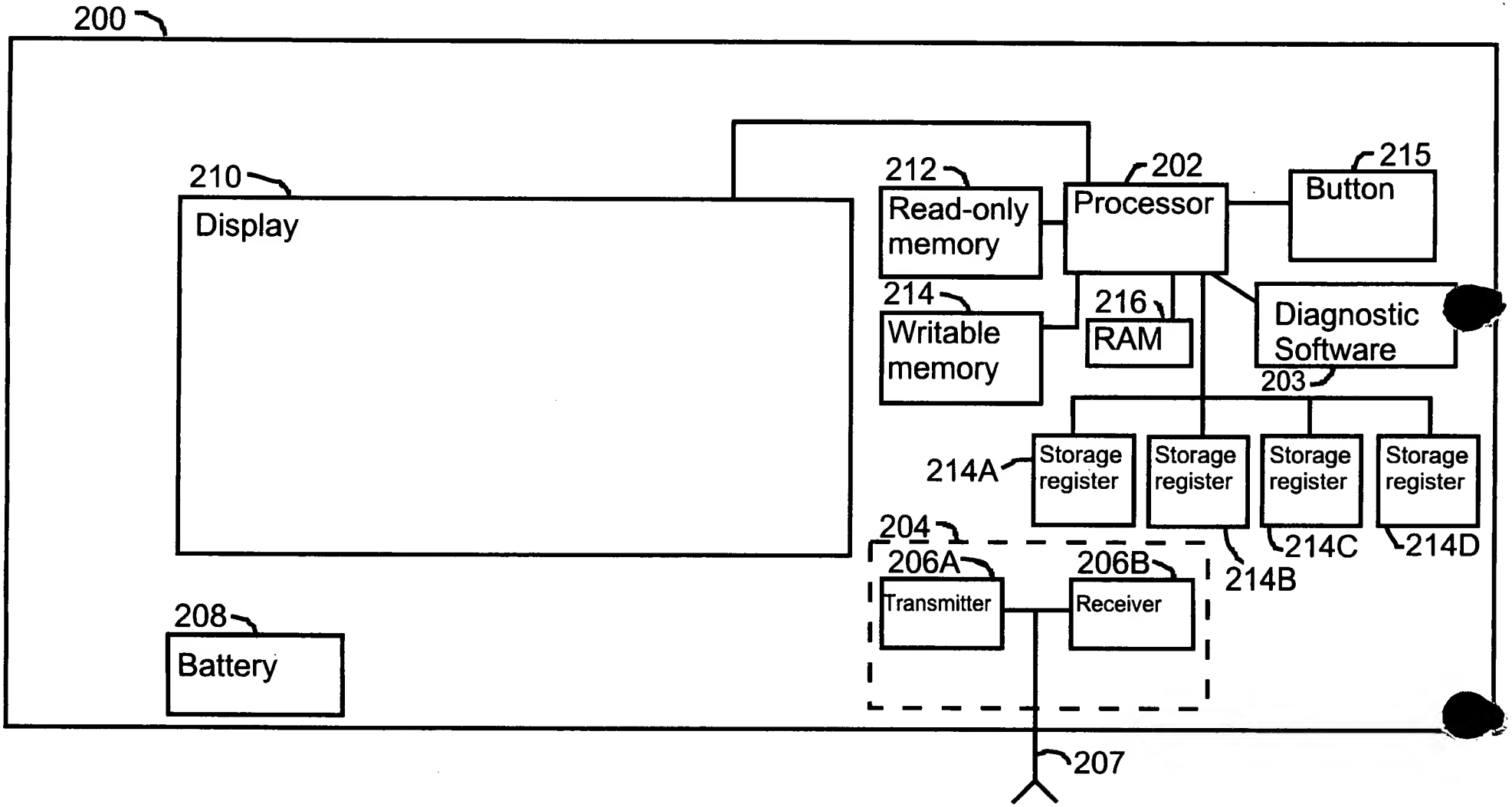
200
210
Display
208
Battery
212
Read-only memory
214
Writable memory
202
Processor
216
RAM
215
Button
Diagnostic Software
203
214A
Storage register
Storage register
Storage register
Storage register
214B
214C
214D
204
206A
Transmitter
206B
Receiver
207

Fig. 2

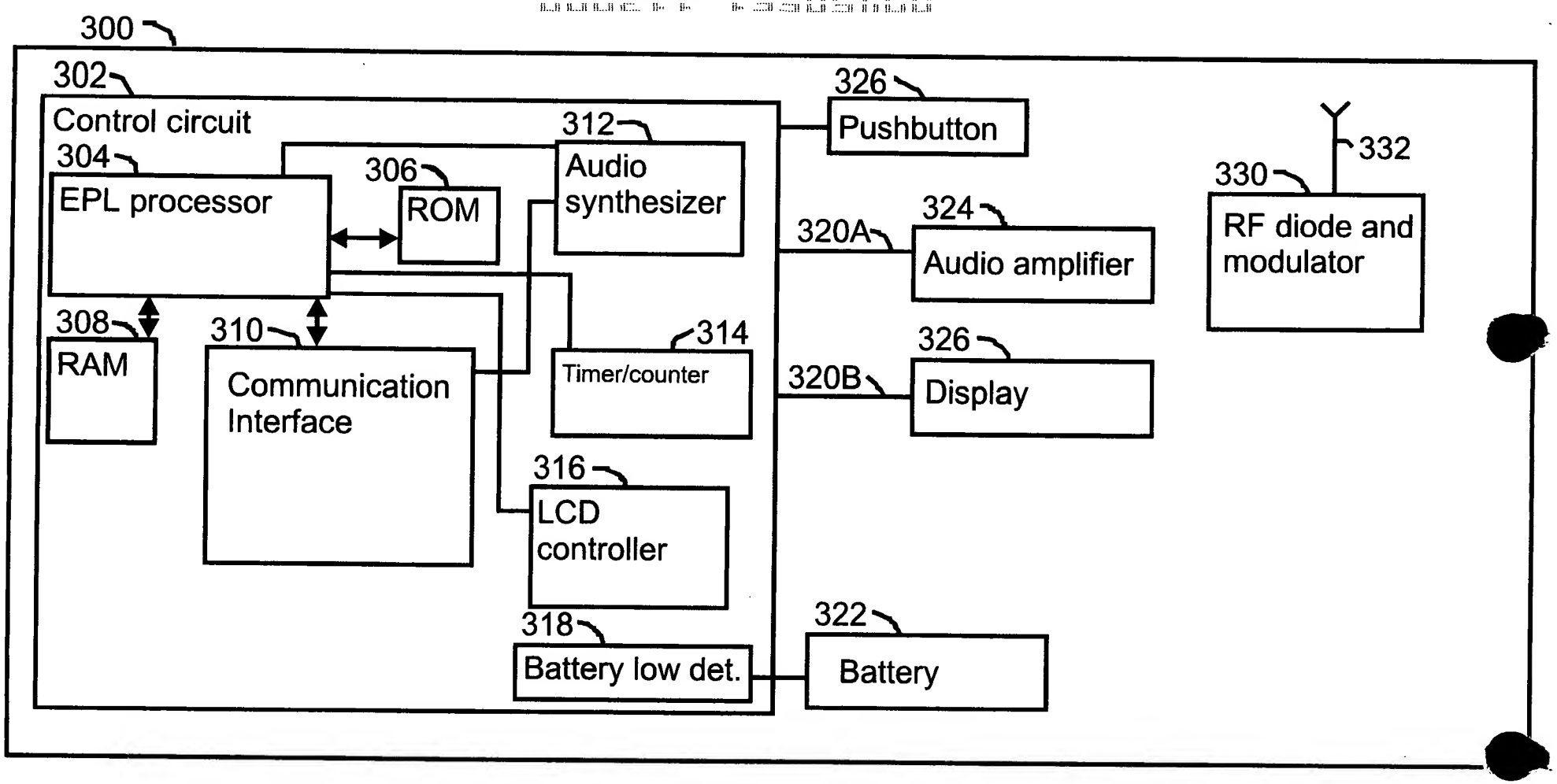
300
302
Control circuit
304
EPL processor
306
ROM
312
Audio synthesizer
326
Pushbutton
330
332
RF diode and modulator
324
320A
Audio amplifier
308
RAM
310
Communication Interface
314
Timer/counter
326
320B
Display
316
LCD controller
318
Battery low det.
322
Battery

Fig. 3

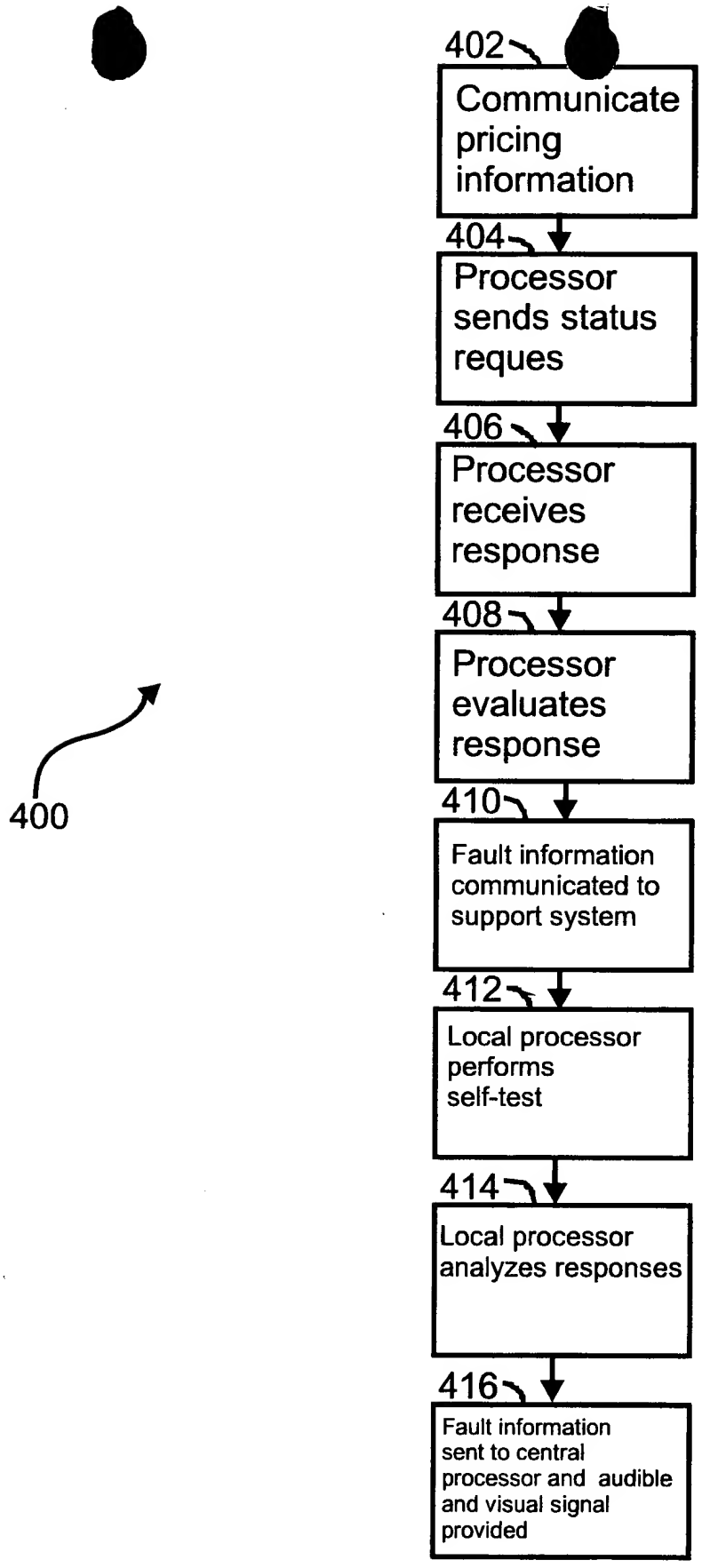
400
402
Communicate pricing information
404
Processor sends status reques
406
Processor receives response
408
Processor evaluates response
410
Fault information communicated to support system
412
Local processor performs self-test
414
Local processor analyzes responses
416
Fault information sent to central processor and audible and visual signal provided

Fig. 4

500

	Test	Purpose	Method
502	Battery level test	Test battery voltage	Query battery low detector
504	Stuck button test	Test pushbutton	Check for rapid change in register selected for display
506	Checksum test	Test displayed price and/or information	Compare display price with checksum
508	LCD glass test	Test display glass	Query circuitry for LCD status
510	Circuitry test	Test EPL circuitry	Query EPL circuitry and obtain return signal

Fig. 5

600

	Monitored Fault	Monitoring Action	Reported Recommendation
602	EPL battery voltage low	Perform EPL battery level test	Replace battery or EPL if level is too low
604	Pushbutton stuck	Perform stuck button test	Attempt to free stuck pushbutton and replace EPL if this fails
606	Incorrect data displayed	Perform checksum test	Retransmit data and replace EPL if this fails to correct the fault
608	EPL display faulty	Perform EPL LCD glass test	Replace EPL
610	EPL circuitry faulty	Perform EPL circuitry test	Replace EPL

Fig. 6